Hybrid Ceramic Electrostatic Clamp

Abstract

The invention is a hybrid chuck for securing workpieces with an electrostatic charge. The hybrid chuck includes a dielectric base for supporting the hybrid chuck. The dielectric base has a top surface and a conductive layer covers at least a portion of the top surface of the dielectric base. The conductive layer is conductive for receiving a current that creates an electrostatic charge and is non-metallic for maintaining the electrostatic charge without significant eddy current losses in the presence of dynamic electromagnetic fields. The top working surface covers the conductive layer and is flat for holding workpieces upon the receiving of the current to create the electrostatic charge in the conductive layer.

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